The Commonwealth of Massachusetts

ANNUAL REPORT

OF THE

BOARD OF REGISTRATION IN OPTOMETRY

FOR THE

YEAR ENDING NOVEMBER 30, 1933

DIVISION OF REGISTRATION
DEPARTMENT OF CIVIL SERVICE AND REGISTRATION

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The Commonwealth of Massachusetts

Department of Civil Service and Registration
Board of Registration in Optometry
State House, Boston, Mass.

To Michael Zack, *Director of Registration*:

Sir:—The Board of Registration in Optometry has the honor to submit to you its twenty-second report, as required by Section 67, Chapter 112 of the General Laws. The Board, during its fiscal year ending November 30, 1933, held twenty-three meetings including its usual bi-annual examinations. The examinations were held in June and November. The following written examinations were given November 27, 28 and 29.

Anatomy

1. Describe the normal anatomy of the conjunctiva.
2. Discuss the construction and composition of the Vitreous.
3. Describe the course of the Trigeminus nerve to the eye.
4. Name and locate the extrinsic muscles of the eye.

Physiology

1. Discuss the physiological reactions of the pupil.
2. What is the function of the vascula system of the retina?
3. Give the functions of (a) the cornea; (b) the aqueous; (c) the iris; (d) the lens; (e) the ciliary body and processes.
4. Discuss physiologically binocular single vision.

Pathology

1. Discuss the prodromal symptoms of glaucoma.
2. Discuss the behavior of the pupil in diseases of the eye.
3. What ocular troubles are caused by tumors of the pons Varolii?
4. Discuss scintillating scotoma.

Answer three questions of each group. The tenth question may be selected from any group.

November, 1933. John E. Corbett, Opt.D.

Practical Optometry

Answer ten questions.

1. What information should be sought in history taking? Why?
2. How are fusion convergence findings obtained? Interpret possible findings.
3. If a patient has an abduction of 12 ∇ and an induction of 16∇, what is probable cause? Explain how correction should be accomplished.
4. Explain optometric procedure in alleviation of divergent strabismus. Give reason for each phase of practice.
5. How does a pupil of 1mm. diameter effect retinoscopic findings?
6. When convergence is excessive due to accommodative relationship, what results?
7. Interpret tonicity findings and upon whose teaching your reasoning is based.
8. Explain use of cross cylinder: 1. For determining power of Rx; 2. Location of axis in an astigmatic case.
9. How can latent hyperopia be ascertained?
10. Explain the practical application of ophthalmometer findings.

November, 1933. Walter Irving Brown, Opt.D.

Theoretic Optics

Answer all ten questions.

1. An opera glass has a + 12.50 D. object glass and a — 25 D. eye piece. How far apart must the lenses be, so that a + 5. D. hyperope sees clearly through them without using accommodation?

2. Two mirrors, No. 1 placed horizontal, No. 2 inclined at an angle of 135° and touching the side of No. 1, and an object is placed 15° above mirror No. 1. How many images would an observer see half way between the mirrors and in what position see more?

3. Discuss primary and secondary rainbows. Show graphically how bows are formed.

4. Four 25 watt electric bulbs in a cluster give sufficient illumination on a book held 6 feet away. How many bulbs would be required to give the same illumination 9 feet away?

5. A photographer wishes to purchase a lens from you that will produce an image one-twelfth as tall as the object when placed at 13 feet from the plate. What is the focal length of the lens and how long must the bellows be?

Physiological Optics

1. Give positions of the seven images of the eye.
2. Discuss what is meant by astigmatism by incidence.
3. Discuss the phenomena of optic illusions.
4. What effect do cylindrical lenses have on the size of retinal images?
5. What is the most effective refracting media of the eye? Give reasons.

November, 1933. Samuel W. Baker, Opt.D.

Theoretic Optometry

1. How may the cross cylinder be employed to determine whether or not a monocularly correct Rx will be correct binocularly?

2. Give several reasons to show that accommodation and convergence are two individual functions. Wherein are they associated?

3. Explain the method of determining the *final* presbyopic addition by dynamic skiametry?

4. Give at least three reasons why it is preferable to take ductions with prisms over both eyes rather than prisms over one eye?

5. Patient age 30 — by skiametry with observation at 13 inches and fixation variable the following lens combination gives neutrality. Plus 1.25 () plus 1.25 x 95. The ametropic correction is minus .50 () minus 1.25 x 5. Where must fixation be in order that the + 1.25 () + 1.25 x 95 may give neutrality?

6. How would you account for the effect of a plus correction, in some cases increasing the amount of base in prism overcome at distance, while in other cases there is a decrease in the amount of base in prism overcome at distance?

7. Explain why it is advocated to use the cover test in conjunction with the Maddox rod test? Explain the technique employed.

8. Explain fully and illustrate by a hypothetical case how it is possible during the subjective fog test, when vision is fogged to the extent of 50% and attention is called to the astigmatic chart two sets of lines appear the blackest and they are at right angles from one another. How would you proceed?

9. (a) Name two factors that determine the power of the cross-cylinder to be employed in a given case. (b) How may the cross cylinder be employed to measure the positive and negative relative convergence?

10. Discuss the three principal theories for the etiology of strabismus.

November, 1933. Charles J. Collins, Opt.D.

Practical Optics

1. (a) How many mm. below center would you mark a Kryptok to have a 14 mm. high reading in a 42 mm. frame? (b) What three lenses could you use to surface grind a — 2.50 sph. + 5.50 wafer?

2. Give type of lenses, style of frame, size of wafer, if any, in the following cases:
   (a) Stock broker, age 50, general office work on desk, and stock board.
   (b) Teacher, age 30, cannot see clearly about school room.
   (c) Grocer, age 42, cannot see to make out bills or look up telephone numbers.

3. Rx ground in bifocal lenses set too high, explain three ways of lowering them.

What is known as a 47 bend?

4. How would you adjust a pair of glasses of a patient, high bridge spectacles, the right eye is 3 m. nearer the nose than the left?

Patient has one eyebrow running much higher than the other, the eyes on same level. How would you adjust?

5. A lens measure shows the following:

(a) outside curve + 6.00 and + 7.50
inside curve — 4.25

(b) outside curve + 9.25 and + 8.25
inside curve Plano.

State the powers.

6. (a) An unknown lens requires — 1.75 to neutralize the vertical meridian, and a + .75 to neutralize the horizontal meridian. Write the prescription.

(b) Which spherical lenses would you use to neutralize the following:

(a) — .75 cyl x 100 = — .87 cyl x 10
(b) + .87 cyl x 45 = — 1.25 cyl x 135
(c) — .37 sph. = + .62 cyl.

7. (a) A bifocal lens requires — 2.25 sphere and a — 3.75 sphere to neutralize the distance lens, a — .50 sphere and a — 2.00 sphere to neutralize the near. Write the prescription.

(b) How can a spherical prescription be transposed?

8. (a) In the following prescription supply the right distance lens:

O. D.
O. S. + .62 = — .87 x 180
O. D. + 1.25 = + .62 x 90
O. S. + 1.75 = + .87 x 90

(b) What is the Dioptric value of the following lenses combined?

+ .75 cyl x 180 = — 1.25 cyl x 90
+ 2.00 cyl x 90 = + 1.25 sph.
+ 1.75 sph. = — .75 cyl x 180
— .87 sph. = + 1.62 cyl x 180

9. (a) What term is applied to the lesser curve of a toric surface?

(b) Which lens has the deeper inside curve:

+ 4.50 = + .75 cyl x 90 Toric 6 Base, or
+ 4.75 PCX.

10. It is desired to decenter a + 3 sph. an amount sufficient to give the equivalent of a 1° prism base in, the finished lens is to be 39 mm. long. What is the minimum size of blank from which such a lens can be cut?

November, 1933. MATTHEW J. FOWLER, Opt.D.

At the June examinations there were 38 candidates taking the examinations:—

21 of whom took their first examinations;
24 took the examination in Anatomy, Physiology and Pathology;
26 in Practical Optometry;
34 in Theoretic and Physiological Optics;
30 in Theoretic Optometry;
25 in Practical Optics;
28 took the Clinical demonstration examination

There were three successful in passing this examination. The sum of six hundred dollars ($600) was received from examination fees.

At the November examinations there were 45 candidats, eleven appearing for their first examinations:—

30 took the examination in Anatomy, Physiology and Pathology;
32 in Practical Optometry;
41 in Theoretic and Physiological Optics;
36 in Theoretic Optometry;
31 in Practical Optics;
6 took the Clinical demonstration examination.

There were seven successful candidates. The sum of three hundred and fifty dollars ($350) was received in examination fees.

There were two applications for reciprocity and the Board rejected both.

The total number examined during the past year was 83, seven of whom were successful and granted certificates of registration.

His Excellency, Governor Ely, oppointed Dr. John E. Corbett of Boston on December 21, 1932, to succeed Dr. Howard C. Doane of Boston, who had been a member of the Board since 1917, serving as Secretary from 1917 to 1925, and as Chairman since 1925. Doctor Doane, as a member of the Board of Registration in Optometry, had rendered a most valuable service to the Commonwealth and his profession.

Dr. Samuel W. Baker was elected to serve as Chairman until the next annual meeting of the Board.

At the annual meeting Dr. Charles J. Collins of Boston was elected Chairman and Dr. Walter Irving Brown of New Bedford was re-elected Secretary for the ensuing year.

The Board held twelve meetings during the year and granted hearings of eleven violations of the Optometry Law. Six certificates were suspended as a result of these hearings.

Five certificates were revoked for non-payment of renewal fees and five were cancelled due to decease of registrant.

One certificate was reissued, making a net loss of one registration for the fiscal year.

Four requests for suspension of license in accordance with section 67 of chapter 112 of the General Laws were granted.

There were two applications received requesting registration by reciprocity, which were denied.

An Ophthalmometer and Ophthalmoscope were added to the equipment used in the clinical demonstration.

The Boston City Society of Optometrists again graciously donated the use of their clinic and its entire facilities for the conduct of the clinical examinations.

Recommendations

The Board made the following recommendations relevant to legislation.

For some time the Board has realized the necessity for certain changes in the law relating to the practice of optometry and is therefore recommending changes in chapter 13 and also chapter 112 of the General Laws. The reasons for these changes, in the opinion of the Board, are as follows:

The law at present does not specifically provide for the appointment of member to fill unexpired terms.

It has been found difficult to meet on the second Tuesday of October in each year. The annual meeting should be held in the month of October, but other meetings should be held as the Board determines or upon call of the chairman.

The definition of the practice of optometry should be made more specific and definite.

The power of the Board to make rules and regulations should be extended to apply to the practice of optometry, such rules to be in keeping and not inconsistent with the provision of the law governing the practice of optometry.

It is necessary that the educational requirements be raised in conformity to the standards required by other States and advances made in professional optometric education.

There should be more specific regulations in regard to the recording of certificates of registration, in order that the location of registered optometrists may be definitely determined at all times.

This recommended legislation was passed by the House of Representatives, but was referred to the next Legislature by the Senate.

Financial Reports

Receipts

Received from applicants for first examination	$800.00
Received from re-examination fees	150.00
Received from renewal fees	1,812.00
Received from back fees	4.00
Fines	15.00
Duplicate certificates	10.00
Total receipts	$2,791.00

Expenditures

Cash paid for compensation for Board members	$1,773.40
Cash paid for travel expenses	558.50
Cash paid for general office expense	606.38
Total expenses	$2,938.28

Respectfully submitted,

Charles J. Collins, Opt.D., *Chairman.*
Walter Irving Brown, Opt.D., *Secretary.*
Samuel W. Baker, Opt.D.
John E. Corbett, Opt.D.
Matthew J. Fowler, Opt.D.